

ABSTRACT

A double-row ball bearing with a preload application structure including an axle and a sleeve surrounding the axle. At least two rows of bearing balls are disposed between the axle and the sleeve. An inner bearing ring is slidably mounted on the axle such that at least one of the two rows of bearing balls is set between the inner bearing ring and the sleeve. The second row of bearing balls is then set directly between the axle and the sleeve. A resilient member is connected to an external side surface of the inner bearing ring, and a preload applying member is connected to the resilient member. The preload applying member applies a preload to the inner bearing ring by increasing pressure on the resilient member. When an appropriate preload is achieved, the preload applying member is fixed to the axle.